Infusing Green and Sustainability Standards in the Career Clusters™ Knowledge and Skill Statements

October 18, 2012

- Genesis
  - U.S. Department of Education supported
  - Incorporate green standards into existing K&S statements developed for National Career Clusters™

- Collaborative Effort
  - U.S. Department of Education
  - MPR Associates, Inc.
  - National Career Technical Education Foundation
  - Vivayic, Inc.

Project Background (cont.)

- Two-Year Time line
  - Year 1: standards development
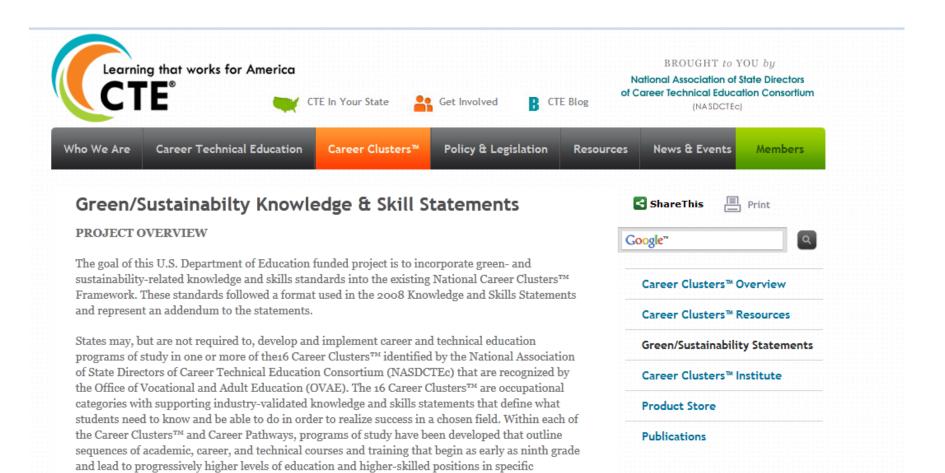 - Year 2: validation and dissemination

- Broad Stakeholder Involvement
  - Subject Matter Experts (SMEs)
    - Debra Rowe, Senior Fellow in Education for Sustainability
    - Susan Gentile, Graduate Professor, Antioch University

- Technical Working Groups (TWGs)
  - Experts from the field
  - Six Career Cluster™ areas
    - Agriculture, Food & Natural Resources
    - Architecture & Construction
    - Information Technology
    - Manufacturing
    - Science, Technology, Engineering & Mathematics
    - Transportation, Distribution & Logistics

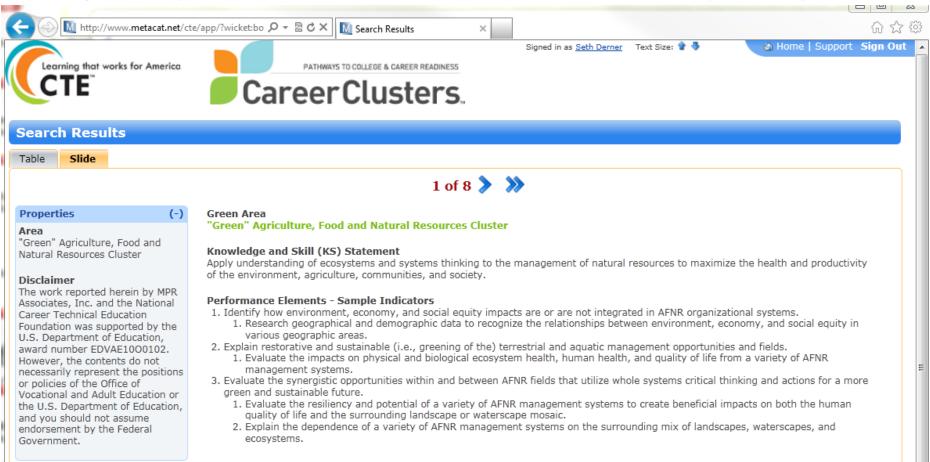# www.careertech.org/career-clusters/green/

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Green/Sustainabilty Knowledge & Skill Statements

PROJECT OVERVIEW

The goal of this U.S. Department of Education funded project is to incorporate green- and sustainability-related knowledge and skills standards into the existing National Career Clusters™ Framework. These standards followed a format used in the 2008 Knowledge and Skills Statements and represent an addendum to the statements.

States may, but are not required to, develop and implement career and technical education programs of study in one or more of the16 Career Clusters™ identified by the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) that are recognized by the Office of Vocational and Adult Education (OVAE). The 16 Career Clusters™ are occupational categories with supporting industry-validated knowledge and skills statements that define what students need to know and be able to do in order to realize success in a chosen field. Within each of the Career Clusters™ and Career Pathways, programs of study have been developed that outline sequences of academic, career, and technical courses and training that begin as early as ninth grade and lead to progressively higher levels of education and higher-skilled positions in specific

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Career Clusters™ Overview

Career Clusters™ Resources

Green/Sustainability Statements

Career Clusters™ Institute

Product Store

Publications

Standards Development

1. Initial training for TWG members

2. TWG evaluation of initial offering

3. Revisions by SMEs and project coordinator

4. Additional input by TWG via portal and meetings

5. Revisions by SMEs and project coordinator

6. Final review by TWG individuals

7. Validation and review via national, online process

8. Review by Career Cluster™ National Advisory Committees

9. Final layout and design for access via portal and website

A "green" process—use of online, standards development portal

Standards Format

- # Career Cluster™ K&S Statements as Model
  - ## Knowledge and Skill Statement – standard
    - ### Performance Element – definition of performance
      - #### Sample Indicators – examples of tasks or products

GREEN/SUSTAINABILITY STANDARDS

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS CLUSTER—TRANSPORTATION SYSTEMS/INFRASTRUCTURE PLANNING, MANAGEMENT, AND REGULATION PATHWAY

	KNOWLEDGE AND SKILL STATEMENT	PERFORMANCE ELEMENT	SAMPLE INDICATORS
1	Understand the relationship among systems, equipment, and human behaviors related to environmental and human health.	1. Use systems thinking to address a problem or issue with transportation systems and infrastructure. 2. Identify effective strategies to influence human behavior in ways that lead to greater transportation efficiency.	1a. Explain the relationship of people, systems, goods, vehicles, and the environment in a given situation. 1b. Find examples of changes to transportation systems and infrastructure where there is evidence of systems thinking. 2a. List human behaviors that impact transportation systems and infrastructure. 2b. Describe strategies that have influenced behavior and led to greater transportation efficiency.

- Cross-Cutting Standards
  - Covering 16 Career Clusters™
  - Define key terms and concepts

- Cluster-Specific Standards
  - Six selected Career Clusters™

Online Database

Online Module and Guide

Standards Use

- Green K&S statements presented as supplemental compendium document (PDF)

- Green K&S statements also included with online CTE standards database

- States may be able to have CTE standards portal directly populate state database

- NCTEF will assume responsibility for maintaining and updating green K&S statements

NASDCTEc

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